

CLAIMS

What is claimed is:

1. A method of manufacturing a film to form a reclosable bag, comprising the steps of:

moving the film; and

attaching sequentially and crosswise with respect to the direction of movement of said

5 film, a fastener comprising a first strip containing at least one reclosable profile interlocked with another reclosable profile that is complementary thereto and contained by a second strip, which will be subsequently attached to said film;

wherein each of said first and second strips contains at least one web extending substantially laterally on one side of the profile contained thereon;

10 wherein the first web is attached to the film by the longitudinal ends of the first strip; and

wherein the first web is attached to the film in at least two points located on the web on opposite longitudinal ends of the first profile.

2. A method of manufacturing a film to form a reclosable bag, comprising the steps of:

moving the film; and

attaching sequentially and crosswise with respect to the direction of movement of said

5 film, a fastener comprising a first strip containing at least one reclosable profile interlocked with another reclosable profile that is complementary thereto and contained by a second strip,

which will be subsequently attached to said film;

wherein each of said first and second strips contains at least one web extending substantially laterally on one side of the profile contained thereon; and

10 wherein said fastener includes a peel-seal strip connecting the webs and disposed outside of the bag with respect to the first and second profiles.

3. A method of manufacturing a film to form a reclosable bag, comprising the steps

of:

moving the film; and

attaching sequentially and crosswise with respect to the direction of movement of said

5 film, a fastener comprising a first strip containing at least one reclosable profile interlocked with another reclosable profile that is complementary thereto and contained by a second strip, which will be subsequently attached to said film;

wherein each of said first and second strips contains at least one web extending substantially laterally on one side of the profile contained thereon; and

10 wherein said fastener includes a gasket membrane disposed between the reclosable profiles.

4. The method according to claim 3, wherein said gasket membrane is disposed between engaged reclosable profiles.

5. The method according to claim 3, wherein said gasket membrane is disposed between disengaged reclosable profiles.

6. The method according to claim 3, wherein said gasket membrane is disposed between partially engaged reclosable profiles.

7. The method according to claim 3, wherein gasket membrane is perforated.

8. The method according to claim 3, wherein the longitudinal ends of said fastener are cross-sealed.

9. The method according to claim 3, wherein each end of said gasket membrane includes a cut-out portion located proximal to said cross-seals, said reclosable profiles being in engagement only along a length substantially corresponding to said cut-out portion.

10. The method according to claim 3, wherein said gasket membrane is attached to one of said webs on an interior side of said reclosable profiles.

11. The method according to claim 3, wherein said gasket membrane is attached to one of said webs on an exterior side of said reclosable profiles.

12. The method according to claim 3, wherein said gasket membrane is attached to said webs on an interior side of said reclosable profiles.

13. The method according to claim 7, wherein said gasket membrane is perforated on an interior side of said reclosable profiles.

14. The method according to claim 7, wherein said gasket membrane is perforated on an exterior side of said reclosable profiles.

15. A method of manufacturing a film to form a reclosable bag, comprising the steps of:

moving the film; and

attaching sequentially and crosswise with respect to the direction of movement of said

5 film, a fastener comprising a first strip containing at least one reclosable profile interlocked with another reclosable profile that is complementary thereto and contained by a second strip, which will be subsequently attached to said film;

wherein each of said first and second strips contains at least one web extending substantially laterally on one side of the profile contained thereon; and

10 wherein said fastener includes a membrane adapted for forming a pouring spout.

16. A method of manufacturing a film to form a reclosable bag, comprising the steps of:

moving the film; and

attaching sequentially and crosswise with respect to the direction of movement of said

5 film, a fastener comprising a first strip containing at least one reclosable profile interlocked with another reclosable profile that is complementary thereto and contained by a second strip, which will be subsequently attached to said film;

wherein each of said first and second strips contains at least one web extending substantially laterally on one side of the profile contained thereon;

and wherein said fastener includes a slider for opening and closing said fastener.

17. The method according to claim 16, wherein said film includes first cut-outs spaced on the film at a distance equal to the dimension of the bag in the direction parallel to the movement of the film.

18. The method according to claim 17, further comprising a step of positioning the fastener at the location of the first cut-out, one of said webs being welded to the film at the location of at least one edge of the first cut-out.

19. The method according to claim 17, further comprising a step of making a second cut-out in the film opposite to said first cut-out.

20. The method according to claim 16, wherein said film includes side cuts, said fastener being attached to said film so that a film extension extends from said side cuts to beyond said reclosable profiles and said slider, said film extensions being sealed together beyond said reclosable profiles and said sealing slider.

21. The method according to claim 20, wherein said sealed film extensions include a perforation disposed beyond said reclosable profiles and said sealing slider and substantially parallel to said reclosable profiles.

22. The method according to claim 21, wherein said film extensions must be torn

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along said perforation before said slider may be used to open and close said fastener.

23. The method according to claim 16, further comprising a step of aligning said slider with one of guide grooves or ribs of a filling tube of a forming, filling and sealing machine.

24. A method of manufacturing a film to form a reclosable bag, comprising the steps of:

moving the film; and

attaching sequentially and crosswise with respect to the direction of movement of said

5 film, a fastener comprising a first strip containing at least one reclosable profile interlocked with another reclosable profile that is complementary thereto and contained by a second strip, which will be subsequently attached to said film;

wherein each of said first and second strips contains at least one web extending substantially laterally on one side of the profile contained thereon;

10 wherein said method is performed by an automatic forming, filling and sealing machine; and

wherein said reclosable profiles are disengaged upstream of a filling tube of said forming, filling and sealing machine;

15 said method further comprising a step of aligning and interlocking said reclosable profiles downstream of said filling tube.

25. A machine for forming, filling and welding a reclosable bag, comprising:

a filling tube; and

first means for welding a first web of a fastener having complementary engageable reclosable profiles to a film, said first welding means being disposed upstream of said filling tube;

5 second means for welding a second web of said fastener to said film, said second welding means being disposed below said filling tube; and

third means for welding together longitudinal edges of said film;

wherein said first and second welding means are disposed to respectively weld said 10 first and second webs transversely with respect to a direction of movement of the film; and

wherein said filling tube includes a longitudinal groove adapted for guiding a slider of said fastener when said fastener passes over said filling tube.

26. The machine according to claim 25, wherein said filling tube includes ribs adapted for guiding a slider of said fastener when said fastener passes over said filling tube.

27. The machine according to claim 25, wherein said reclosable profiles are disengaged upstream of said filling tube and wherein said reclosable profiles are aligned and engaged downstream of said filling tube.

28. A fastener for a reclosable bag produced on a forming, filling and sealing machine, comprising:

at least one first reclosable profile being supported on a first strip, said first strip including a first web extending substantially laterally from one side of said first profile, said

5 first web being adapted for attachment to a film of said bag;
at least one second reclosable profile being supported on a second strip, said second strip including a second web extending substantially laterally from one side of said second reclosable profile, each of said at least one second reclosable profile being complementary to and engageable with a respective one of said at least one first reclosable profile, said second

10 web being adapted for attachment to the film of said bag; and
a gasket membrane disposed between said first and second reclosable profiles.

29. The fastener according to claim 28, wherein said first reclosable profile is disengaged with said second reclosable profile.

30. The fastener according to claim 28, wherein said first reclosable profile is in partial engagement with said second reclosable profile.

31. The fastener according to claim 30, wherein said gasket membrane is disposed between said first and second reclosable profiles in an area where said first and second reclosable profiles are disengaged.

32. The fastener according to claim 28, wherein said gasket membrane is connected to one of said first and second webs.

33. The fastener according to claim 28, wherein said gasket membrane is connected to said first and second webs.

34. The fastener according to claim 28, wherein said gasket membrane is perforated.

35. The fastener according to claim 28, wherein said gasket membrane is adapted to form a pouring spout.

36. A fastener for a reclosable bag produced on a forming, filling and sealing machine, comprising:

at least one first reclosable profile being supported on a first strip, said first strip

including a first web extending substantially laterally from one side of said first profile, said

5 first web being adapted for attachment to a film of said bag; and

at least one second reclosable profile being supported on a second strip, said second strip including a second web extending substantially laterally from one side of said second reclosable profile, each of said at least one second reclosable profile being complementary to and engageable with a respective one of said at least one first reclosable profile, said second

10 web being adapted for attachment to the film of said bag; and

a slider for opening and closing said bag.

37. The fastener according to claim 36, wherein said slider is disposed on said fastener to be aligned with one of guide grooves or ribs on a filling tube of said forming, filling and sealing machine.

38. The fastener according to claim 36, wherein said strips define a U-shaped cross-section.

39. A reclosable bag, comprising:

a film forming first and second walls of said reclosable bag; and

a fastener comprising:

at least one first reclosable profile being supported on a first strip, said first strip

5 including a first web extending substantially laterally from one side of said first profile, said

first web being attached to an open end of said first wall;

at least one second reclosable profile being supported on a second strip, said second

strip including a second web extending substantially laterally from one side of said second

reclosable profile, each of said at least one second profile being complementary to and

10 engageable with a respective one of said at least one first reclosable profile, said second web

being attached to an open end of said second wall; and

a slider for opening and closing said first and second reclosable profiles;

wherein each wall includes a film extension extending from a side cut in said wall to

beyond said reclosable profiles and said slider, said film extensions being sealed together

15 beyond said reclosable profiles and said slider.